## **AMENDED VERSION**

## **CLAIMS**:

- 1. (Currently Amended) An antibody recognizing one of the AchE-R-splice variant of a C-terminal peptide derived from acetycholinesterase and a C-terminal peptide derived therefrom, said C-terminal peptide comprising the I4 peptide and denoted by SEQ ID No:1, for diagnosing at least one of central nervous system (CNS) stress, disruption of the blood-brain-barrier and Alzheimer's disease.
- 2. (Original) The antibody according to claim 1, wherein the CNS stress is caused by any one of psychological, chemical and physical insult.
  - 3. (Canceled)
  - 4. (Canceled)
- 5. (Currently Amended) The antibody according to claim 4 1, which is monoclonal.
- 6. (Withdrawn) A method for the diagnosis of one of central nervous system (CNS) stress and disruption of the blood-brain-barrier in a mammal, comprising obtaining a sample from said mammal, contacting said sample with an antibody of claim 1, removing unbound antibody, and detecting the extent of reaction between said antibody and acetylcholinesterase or a fragment thereof present in said sample.
- 7. (Withdrawn) A method for the diagnosis of one central nervous system (CNS) stress and disruption of the blood-brain-barrier in a mammal, comprising contacting a sample of said mammal with an antibody of claim 1, removing unbound

USSN: 09/980,263

Attorney Docket No.: 2391.00101

antibody, and detecting the extent of reaction between said antibody and acetylcholinesterase or a fragment thereof present in said sample.

- 8. (Withdrawn) The method of claim 6, wherein the CNS stress is caused by one of physical, chemical and psychological insult.
- 9. (Withdrawn) The method according to claim 8, wherein the physical insult is one of head injury, head trauma and exposure to irradiation.
- 10. (Withdrawn) The method according to claim 8, wherein the chemical insult is one of exposure to insecticide and nerve gas.
- 11. (Withdrawn) A method for the diagnosis of Alzheimer's disease in a subject, comprising obtaining a sample from said subject, contacting said sample with an antibody of claim 1, removing unbound antibody, and detecting the extent of reaction between said antibody and acetycholinesterase or a fragment thereof present in said sample.
- 12. (Withdrawn) A method for the diagnosis of Alzheimer's disease in a subject, comprising contacting a sample of said mammal with an antibody of claim 1, removing unbound antibody, and detecting the extent of reaction between said antibody and acetycholinesterase or a fragment thereof present in said sample.
- 13. (Withdrawn) A method according to claim 6, wherein the sample is one of serum and cerebrospinal fluid sample.
- 14. (Withdrawn) A method according to claim 11, wherein the sample is one of serum and cerebrospinal fluid sample.

USSN: 09/980,263

Attorney Docket No.: 2391.00101

15. (Withdrawn) Use of the antibodies of claim 1, in the diagnosis of one of central nervous system (CNS) stress, Alzheimer's disease and disruption of the blood-brain-barrier in a mammal.